



NASA CONNECT™



Register online at
<http://connect.larc.nasa.gov>
to receive a FREE PDF of the educator
guides and program updates via email.

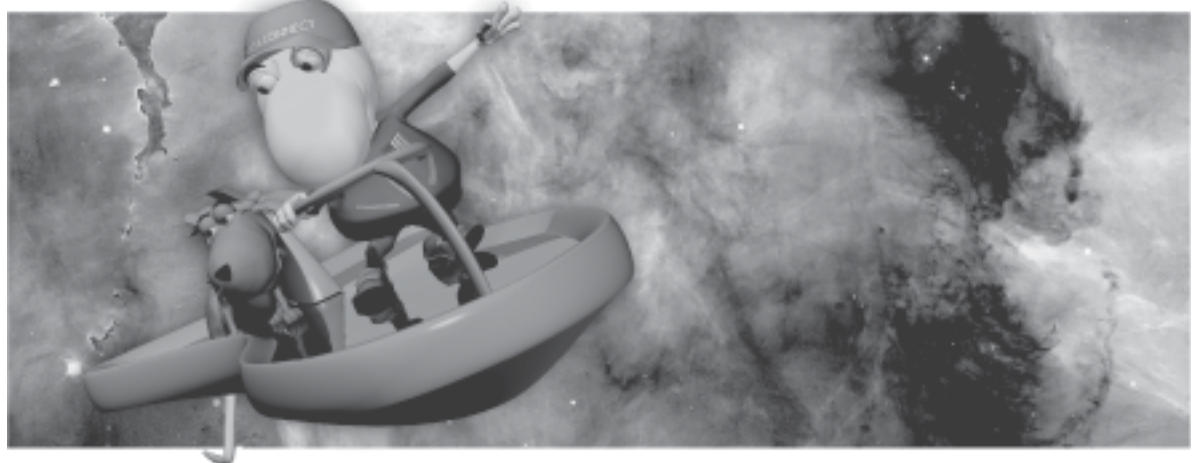
2005-2006 Season

NASA CONNECT™ is a FREE, annual series of integrated science, technology, engineering, and math (STEM) programs emphasizing standards-based instruction for students in grades 6–8. Each program in this Emmy®-award-winning series has three components: (1) a 30-minute television broadcast; (2) an educator guide, including a hands-on activity; and (3) an online activity that reinforces concepts presented in the broadcast.

Use the Power of Technology to Make the NASA Connection

Your students can participate in a FREE NASA LIVE™ videoconference that connects them to the NASA experts featured in each new program, the latest research, exciting demonstrations, and more.

This opportunity is offered as a part of NASA LIVE™. Students must have viewed the NASA CONNECT™ broadcast prior to participating. To register for a NASA LIVE™ event and additional information, visit <http://live.larc.nasa.gov>.



Rights and Use

Registrants will be granted an unlimited non-exclusive license to use, reproduce, and perform and display publicly our copyrighted works, enabling educators to use the programs as often as you like.

Educational Product

Educators	Grades 6-8
------------------	-------------------

EP-2005-06-05-LARC

Free Classroom Mentors

The American Institute of Aeronautics and Astronautics provides classroom mentors to assist with the hands-on activities. For more information, visit the NASA CONNECT™ web site or email nasconnect@aiaa.org.

How can I get the television broadcast?

Programs air on PBS, NASA TV, and many Cable Access Channels. Check your local listings for dates and times.

The programs are up-linked in KU- and C-band. A schedule and detailed satellite information is available on the NASA CONNECT™ web site.

Programs can be viewed online. Visit the NASA CONNECT™ web site for details.

Video copies of the broadcast can be purchased from NASA CORE, <http://core.nasa.gov> or call toll free, 1-866-776-CORE.

See the web site for more details about getting the television broadcast.
<http://connect.larc.nasa.gov>

<http://connect.larc.nasa.gov>

Check the back for a list of programs in the 2005–2006 NASA CONNECT™ series and for more information about obtaining the programs.

2005-2006 SEASON

(R) indicates a repeat program from the 2004-2005 NASA CONNECT™ season.

The Right Ratio of Rest: Proportional Reasoning©

Starts airing: Thursday, September 22, 2005

Why is sleep so critical to good health? This program focuses on the NASA Exploration Mission Directorate's Bioastronautics program. Students will learn about circadian rhythms, how they affect their daily lives, and why NASA is studying them. Using hands-on lessons and web-based activities, students will develop proportional reasoning skills and understand how fractions, decimals, and percentages are related.

NUMBERS AND OPERATIONS • DATA ANALYSIS • SCIENCE IN SOCIAL AND PERSONAL PERSPECTIVES • LIFE SCIENCE SCIENCE AS INQUIRY • SPACE EXPLORATION • CAREERS

Good Stress: Graphing© (R)

Starts airing: Thursday, October 20, 2005

Students will learn how important it is to build and maintain better muscles and bones and that all stresses in life are not "bad." The body needs "good" stresses, like exercise, to be healthy. Students will find out how scientists and researchers collect and analyze physiological data to understand how muscle and bones are constantly changing, especially in a microgravity environment. By conducting inquiry-based and web activities, students will "connect" NASA research with the mathematics, science, and technology they learn in their classrooms.

MEASUREMENT • DATA ANALYSIS AND GRAPHING • LIFE SCIENCE • SCIENCE IN SOCIAL AND PERSONAL PERSPECTIVES • SCIENCE AS INQUIRY/SPACE EXPLORATION • CAREERS

Team Extreme: The Statistics of Success©

Starts airing: Thursday, November 17, 2005

How many people are involved in a successful mission? This program focuses on NASA's Space Operations Mission Directorate and the teamwork required to produce a successful space mission. Students will learn about the numerous systems, skills, and capabilities involved in a mission and how NASA manages and integrates these systems. Students will draw a parallel between the teamwork used in a NASA mission and find out how teamwork energizes the popular sport of auto racing. Using hands-on lessons and web-based activities, students will develop an understanding of statistical analysis and how statistics are used to make decisions.

NUMBERS AND OPERATIONS • MEASUREMENT • DATA ANALYSIS AND PROBABILITY • SCIENCE AS INQUIRY/PHYSICAL SCIENCE • SCIENCE AND TECHNOLOGY • SPACE OPERATIONS • CAREERS

Rocket to the Stars: Introduction to Algebra© (R)

Starts airing: December 15, 2005

Students will learn the basic science concepts of work and energy and discover how using algebra can help explain both concepts. NASA is working on new ways of powering spacecraft that will reduce travel time to the Moon, Mars, and beyond. They will learn about two cutting-edge, innovative propulsion technology programs—Prometheus and VASIMR—which will allow crewed and uncrewed vehicles to explore the distant reaches of the solar system. By conducting inquiry-based and web activities, students will "connect" NASA research with the mathematics, science, and technology they learn in their classrooms.

ALGEBRA • SCIENCE AS INQUIRY • PHYSICAL SCIENCE • SCIENCE AND TECHNOLOGY • SPACE EXPLORATION/ CAREERS

Virtual Earth: Using Concept Maps To Solve Problems© (R)

Starts airing: January 19, 2006

Students will discover Earth system science and (1) learn what systems and subsystems are and how the Earth functions as a system, (2) focus on the application of Earth system science, and (3) learn how the knowledge, science, and technologies that result from NASA's Earth Science missions improve weather, climate, and natural hazards predictions. By conducting inquiry-based and web activities, students will "connect" NASA research with the mathematics, science, and technology they learn in their classrooms.

PROBLEM SOLVING • SCIENCE AS INQUIRY • LIFE SCIENCE • EARTH AND SPACE SCIENCE • CAREERS

Path of Totality: Measuring Angular Size and Distance©

Starts airing: February 16, 2006

This program draws its content from the Science Mission Directorate's Sun-Earth Forum. Students will learn about the natural phenomenon that creates a total eclipse and the relative movement of objects in our solar system. Students also will explore the history, mythology, and current science surrounding these amazing events. Using hands-on lessons, web-based activities, and simple tools, students will measure and approximate the angular size and distance of objects in the sky.

ALGEBRA • PROBLEM SOLVING • GEOMETRY • SCIENCE AS INQUIRY • EARTH AND SPACE SCIENCE • CAREERS

Ancient Observatories: Measuring Different Angles© (R)

Starts airing: March 16, 2006

Students will find out how cultures from ancient times to the present have used the Sun and other objects in the sky to mark the passage of time. They will see how archaeoastronomers use ancient observatories to predict seasons and special events. Using the simple tools of geometry and the angle bisector method, students will measure the movement of the Sun and find solar noon for their location. By conducting inquiry-based and web activities, students will "connect" NASA research with the mathematics, science, and technology they learn in their classrooms.

GEOMETRY • PROBLEM SOLVING • EARTH AND SPACE SCIENCE • SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES • CAREERS

Rendezvous with Density: Solving Linear Equations©

Starts airing: April 20, 2006

Using content from the Aeronautics Mission Directorate and the Mars ARES Project, this program introduces teachers and students to the exploration and challenges of atmospheric flight on other planets. They will learn how flight surfaces, airfoils, and aero-braking change as atmospheric density changes. Students discover how to use four algebraic properties necessary to solve linear equations. Using hands-on lessons and classroom materials, students will construct models based on their own calculations.

ALGEBRA • MEASUREMENT • SCIENCE AS INQUIRY • PHYSICAL SCIENCE • SCIENCE AND TECHNOLOGY • AERONAUTICS • CAREERS

Landscape Archaeology: Hidden Treasures, Using Coordinate Plane Geometry© (R)

Starts airing: May 18, 2006

In NASA CONNECT™: Landscape Archaeology: Hidden Treasures, students will learn how researchers and scientists use data collected through remote sensing to study hidden features on the Earth's surface and from ancient cultures. Students will discover how archaeologists use the math concepts of coordinate geometry and powerful GIS software to solve current world problems by investigating clues from the past. By conducting inquiry-based and web activities, students will "connect" NASA research with the mathematics, science, and technology they learn in their classrooms.

GEOMETRY • MEASUREMENT • DATA ANALYSIS AND PROBABILITY • EARTH AND SPACE SCIENCE • SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES • CAREERS

